

was for prescription medications, at \$747,551,471 (mean = \$59.87; 95% CL = \$51.95–\$67.78). Office-based medical provider visits were \$396,946,065 (mean = \$73.50; 95% CL = \$60.20–\$86.80). Emergency department visits were approximately \$110 million while outpatient services, inpatient stays, and home health services were each below \$100 million. **CONCLUSIONS:** The cost of treating a migraineur was estimated to be \$293 in 1999, nearly 3 times higher than \$100 reported in 1994. However, total direct costs in 1999 were \$1.5 billion, only 50% higher than \$1 billion reported in 1994. Prescription expenditures at greater than 50% of direct costs were a major factor in the increase in incident cost. The rate of increase in total costs was less than the rate of increase in incident costs, suggesting either greater drug efficacy or reduced use of more costly medical care alternatives.

**ND3**

### **ECONOMIC ANALYSIS OF ACUTE MIGRAINE THERAPY UTILIZATION WITHIN THE WISCONSIN STATE MEDICAID POPULATION**

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**OBJECTIVES:** There is a wide array of pharmacological agents available for the acute treatment of migraine headache. The 5-HT<sub>1B/1D</sub> receptor agonists (triptans), ergotamine derivatives, and isometheptene/dichloralphenazone combination products represent the most frequently prescribed migraine-specific therapies. Our objective is to describe the costs and explore the utilization patterns of migraine-specific therapies in the Wisconsin Medicaid population. **METHODS:** Wisconsin Medicaid drug utilization data for 2001 was used. These data were obtained directly from the Centers for Medicare & Medicaid Services website. National Drug Codes were used to extract quarterly utilization data for products belonging to three classes of acute migraine therapies (triptans, ergotamine derivatives, and isometheptene/dichloralphenazone combination products). Analysis of utilization was performed for each quarter of 2001 by aggregating the amount and number of claims reimbursed across products. Further analysis was conducted to examine the average cost per claim between pharmacological classes and individual triptan therapies. **RESULTS:** In 2001, the Wisconsin Medicaid program reimbursed acute-migraine drug treatment claims totaling \$2,372,463.66, representing 15,120 prescription claims. Most of this expenditure (98.3%/\$2,331,090.71) was a result of triptan claims, with 1.5% (\$34,715.25) and 0.2% (\$6,657.70) representing ergotamine derivative and isometheptene/dichloralphenazone combination product claims, respectively. Within the triptan class, sumatriptan (9,122/\$1,599,212.19), rizatriptan (2,388/\$306,947.59) and zolmatriptan (1,877/\$264,947.76) composed the first, second, and third most utilized products. Cost per

claim values within the oral triptans varied greatly with a high of \$180.72 (sumatriptan) and a low of \$81.51 (almotriptan). **CONCLUSION:** In the Wisconsin Medicaid population, utilization of migraine-specific therapies was weighted heavily towards the triptans. With the large variation in claims cost among oral triptans, considerable cost savings could be realized if a system was implemented to increase utilization of newer, second-generation triptans (non-sumatriptan) as first-line therapy. However, such a clinical decision should be supported by comparative clinical trial data that supports equivalent or superior efficacy to sumatriptan.

**ND4**

### **ARE ELDERLY PATIENTS RECEIVING APPROPRIATE ANTIEPILEPTIC DRUGS?**

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**OBJECTIVE:** Clinical recommendations advocate use of carbamazepine, lamotrigine, and gabapentin rather than phenobarbital and phenytoin for treating older patients with epilepsy. We describe prescribing patterns for older veterans newly diagnosed with epilepsy, determine if practice is consistent with clinical recommendations, and describe those at greatest risk of receiving these potentially inappropriate antiepileptic drugs (AEDs). **METHODS:** Retrospective national inpatient, outpatient, and pharmacy data from the Veterans Health Administration (VA), were used to identify veterans >64 years with an epilepsy diagnosis during fiscal year 1999 (FY99) who also received AEDs from the VA in FY99. Patients who were seen in the VA during FY97-98 with no previous diagnosis of epilepsy were selected. We identified patients' AED regimen for FY99, demographic characteristics, neurology consultations, and disease severity. We used logistic regression to identify patients most likely to receive phenobarbital and phenytoin. **RESULTS:** Eighty-five percent received monotherapy. Ten percent of patients received regimens containing phenobarbital, 68% received regimens including phenytoin, and 25% received only recommended AEDs. Logistic regression analyses indicated that patients with more severe disease were less likely to receive phenobarbital monotherapy than other monotherapy (OR: 0.47, 95% CI 0.22–0.98) and phenobarbital combinations than other combinations (OR: 0.29, 95% CI 0.13–0.70). Patients receiving neurology consultation were less likely to receive phenytoin monotherapy than monotherapies consistent with clinical recommendations (New OR: 0.49, 95% CI 0.39–0.61). **CONCLUSIONS:** A surprising number of newly diagnosed veterans received phenobarbital despite its well known adverse effects. Moreover, our finding that nearly 70% receive phenytoin is not consistent with